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Extended therapy for unprovoked venous thromboembolism: when is it indicated?

Tobias Tritschler[1,2] and Philip S. Wells[2,3]

[1]Department of General Internal Medicine, Inselspital, Bern University Hospital, University of Bern, Bern, Switzerland; [2]Department of Medicine, University of Ottawa, Ottawa, ON, Canada; and [3]Ottawa Hospital Research Institute, The Ottawa Hospital, Ottawa, ON, Canada

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Abstract

Immediate initiation of anticoagulant therapy is imperative when acute venous thromboembolism (VTE) is diagnosed; 3 months is the minimum duration of treatment. Subsequently, the choice between anticoagulant agents and the continuation of treatment should be guided by the etiology of the VTE event. Etiology is best defined as provoked or unprovoked. Provoked is VTE associated with risk (provoking) factors that are transient or persistent, and major or minor. When risk factors are absent, VTE is classified as unprovoked. Unprovoked VTE has a high probability of recurrence once treatment is stopped, and studies suggest that this is unchanged by initial duration of therapy. The decision of whether to continue anticoagulant therapy in patients with unprovoked VTE is determined by the probability of recurrence, but this must be balanced by the risk of major bleeding and the case fatality rates associated with recurrence and bleeding. Patient preference must also be considered. The probability of recurrence can be further defined by single factors such as sex, whether the index event was deep vein thrombosis or pulmonary embolism, D-dimer, and residual venous obstruction but it is best determined by sex and by prediction rules. Men have a high probability of recurrence and should continue therapy, unless they have a high probability of bleeding and the initial event is a deep vein thrombosis. Women with low probability of recurrence by the HERDOO2 prediction rule (hyperpigmentation, edema, or redness in either leg; D-dimer level $\geq$250 μg/L; obesity with body mass index $\geq$30; and older age, $\geq$65 years) can discontinue anticoagulation. In women with higher probability of recurrence, indefinite treatment is indicated unless they are at high probability of bleeding.

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ORCID profiles: T.T., 0000-0002-8775-0511; P.S.W., 0000-0002-8657-8326.

Correspondence: Philip S. Wells, The Ottawa Hospital, 501 Smyth Rd, PO Box 206, Ottawa, ON K1H 8L6, Canada; e-mail: pwells@toh.ca.